

Fig.1

CGAGGTGGGTGGAGTCCGACTCCGGGTACAGAGTCTCTGGCGCTCATCGCCTCTGG	60
CTCCAGCCTTTGCTTCGCGGGGCTGACCTTTGGGTCCCGGTGTGATCTCCAGCTGCCCC	120
CGGGGCTGGACAGCAGGGCGCGCGGAGCGGTGGAGGGGCTCTAGGACTCTGCGCG	180
GCCCCGCCCCCTCCGCGGGACCCGGAGCCAGCATGGACCACACTCGGGCGCCGC	240
AGCC	244
ATGGCGCTCGCCCCGCTGCTGCTGGCTGTGATTTTAGGGGCACTGTCTGTAGTGGCC	301
MetAlaLeuAlaArgCysValLeuAlaValIleLeuGlyAlaLeuSerValValAla	19
CGCGTGATCCGGTCTCGCGCTCTCCCTTTCACCGCCCGCATCCGTCCCCACCGGTTCC	361
ArgAlaAspProValSerArgSerProLeuHisArgProHisProSerProProArgSer	39
CAACACGGCGACTACCTTCCCAGCTCGCGGGCCACCCAGGACCCCGCGCTTCCCCGCTC	421
GlnHisAlaHisTyrLeuProSerSerArgArgProProArgThrProArgPheProLeu	59
CCGCTGCGGATCCCCGCTGCCAGCGCCCGCAGGTCTCTAGCACCGGGCACACGCCCCCG	481
ProLeuArgIleProAlaAlaGlnArgProGlnValLeuSerThrGlyHisThrProPro	79
ACGATTCCACGCCGCTCGCGGGCAGAGATCGTGGGGCAATGCCACCAACCTCGGCGTC	541
ThrIleProArgArgCysGlyAlaGlyGluSerTrpGlyAsnAlaThrAsnLeuGlyVal	99
CCGTGTCTACACTGGACGAGGTGCCGCCCTTCTCTGGAGCGGTGCCCGCCAGTTGG	601
ProCysLeuHisTrpAspGluValProProPheLeuGluArgSerProProAlaSerTrp	119

Fig.2

GCTGAGCTGCGAGGGCAGCCGACAACTTCTGCCGGAGCCCGATGGCTCGGCAGACCT	661
AlaGluLeuArgGlyGlnProHisAsnPheCysArgSerProAspGlySerGlyArgPro	139
TGGTGCTTCTATCGGAATGCCCGAGGCAAGTAGACTGGGGCTACTGCGATTGTGGTCAA	721
TrpCysPheTyrArgAsnAlaGlnGlyLysValAspTrpGlyTyrCysAspCysGlyGln	159
GGCCCGGCGTTGCCCGTCATTCGCCCTTGTGTGGGAACAGTGGGCATGAAGTCGAGTG	781
GlyProAlaLeuProValIleArgLeuValGlyGlyAsnSerGlyHisGluGlyArgVal	179
GAGCTGTACCAACGCTGGCCAGTGGGGACCATCTGTGACGACCAATGGACAATGCAGAC	841
GluLeuTyrHisAlaGlyGlnTrpGlyThrIleCysAspAspGlnTrpAspAsnAlaAsp	199
GCAGACGTCATCTGTAGGCAGCTGGGGCTCAGTGGCATTGCCAAAGCATGGCATCAGGCA	901
AlaAspValIleCysArgGlnLeuGlyLeuSerGlyIleAlaLysAlaTrpHisGlnAla	219
CATTTTGGGGAAGGATCTGGCCCAATATTGTTGGATGAAGTACGCTGCACCGGAAACGAG	961
HisPheGlyGluGlySerGlyProIleLeuLeuAspGluValArgCysThrGlyAsnGlu	239
CTGTCAATTGAGCAATGTCCAAAGAGTTCTCTGGGGCGAACAATACTGTGGCCATAAGAA	1021
LeuSerIleGluGlnCysProLysSerSerTrpGlyGluHisAsnCysGlyHisLysGlu	259

Fig.3

GATGCTGGAGTGTCTTGTGTCTTCTTAAACAGATGGTGTCTATCAGACTGGCAGGAGAAAA	1081
AspAlaGlyValSerCysValProLeuThrAspGlyValIleArgLeuAlaGlyGlyLys	279
AGTACCCATGAAGTCGCCCTGGAGGTCTACTACAAGGGCAGTGGGGACAGTCTGTGAT	1141
SerThrHisGluGlyArgLeuGluValTyrTyrLysGlyGlnTrpGlyThrValCysAsp	299
GATGGCTGGACTGAGATGAACACACATACGTGGCTTGTCTGACTGCTGGGATTAAATACGGC	1201
AspGlyTrpThrGluMetAsnThrTyrValAlaCysArgLeuLeuGlyPheLysTyrGly	319
AAACAGTCCCTCTGTGAACCATTTTGATGGCAGCAACAGGCCCATATGGCTGGATGACGTC	1261
LysGlnSerSerValAsnHisPheAspGlySerAsnArgProIleTrpLeuAspVal	339
AGTGTCTCAGGAAAGAAAGTCAGCTTTCATTTCAGTGTTCACAGGAGACAGTGGGGAAGGCAT	1321
SerCysSerGlyLysGluValSerPheIleGlnCysSerArgArgGlnTrpGlyArgHis	359
GACTGCAGCCATAGAGAAGATGTGGCCCTCACCTGCTATCCTGACAGCGATGGACATAGG	1381
AspCysSerHisArgGluAspValGlyLeuThrCysTyrProAspSerAspGlyHisArg	379
CTTTCTCCAGGTTTTCCTCATCAGACTAGTGGATGGAGAGAATAAGAAAGGACGAGTG	1441
LeuSerProGlyPheProIleArgLeuValAspGlyGluAsnLysLysGluGlyArgVal	399

Fig.4

GAGGTTTTCATGGCCCAATGGGAACAATCTGCGATGACGGATGGACCGATAAGCAT	1501
GluValPheValAsnGlyGlnTrpGlyThrIleCysAspGlyTrpThrAspLysHis	419
GCAGCTGTGATCTGCGCGCAGCTTGGCTATAAGGGTCTGCCAGAGCAAGGACTATGGCT	1561
AlaAlaValIleCysArgGlnLeuGlyTyrLysGlyProAlaArgAlaArgThrMetAla	439
TATTTTGGGGAAGGAAAGCCCCCATCCACATGGATAATGTGAAGTCACAGGAAATGAG	1621
TyrPheGlyGluGlyLysGlyProIleHisMetAspAsnValLysCysThrGlyAsnGlu	459
AAGGCCCTGGCTGACTGTGTCAAACAAGACATTTGGAAGGCACAACCTGCCGCCACAGTGAG	1681
LysAlaLeuAlaAspCysValLysGlnAspIleGlyArgHisAsnCysArgHisSerGlu	479
GATGCAGGAGTCATCTGTGACTATTAGAGAGAGAAAGCATCAAGTAGTGGTAATAAGAG	1741
AspAlaGlyValIleCysAspTyrLeuGluLysLysAlaSerSerSerGlyAsnLysGlu	499
ATGCTCTCATCTGGATGTGGACTGAGGTTACTGCACCGTCGGCAGAAACGGATCATTTGGT	1801
MetLeuSerSerGlyCysGlyLeuArgLeuLeuHisArgArgGlnLysArgIleIleGly	519
GGGAACAATTCTTTAAGGGGTGCCTTGGCCCTTGGCAGGCTTCCCTCAGGCTGAGGTCGGCC	1861
GlyAsnAsnSerLeuArgGlyAlaTrpProTrpGlnAlaSerLeuArgLeuArgSerAla	539

Fig.5

CATGGAGACGGCAGGCTGCTTTGTGGAGCTACCCCTTCTGAGTAGCTGCTGGGTCCCTGACA 1921
HisGlyAspGlyArgLeuLeuCysGlyAlaThrLeuLeuSerSerCysTrpValLeuThr 559

GCTGCACACTGCTTCAAAAGGTACGGAAACAACTCGAGGAGCTATGCAGTTCGAGTTGGG 1981
AlaAlaHisCysPheLysArgTyrGlyAsnAsnSerArgSerTyrAlaValArgValGly 579

GATTATCATACTCTGGTACCAGAGGAGTTTGAACAAGAAATAGGGTTCAACAGATTGTG 2041
AspTyrHisThrLeuValProGluGluPheGluGlnGluIleGlyValGlnIleVal 599

ATTCACAGGAACACTACAGGCCAGACAGAACCGACTATGACATTGCCCTGGTTAGATTGCAA 2101
IleHisArgAsnTyrArgProAspArgSerAspTyrAspIleAlaLeuValArgLeuGln 619

GGACCCAGGGAGCAATGTGCCAGACTAAGCACCCACGTTTGTGCCAGCCCTGTTTACCTCTA 2161
GlyProGlyGluGlnCysAlaArgLeuSerThrHisValLeuProAlaCysLeuProLeu 639

TGGAGAGAGGGCCACAGAAACAGCCCTCCAACTGTACACATAACAGGATGGGAGACACA 2221
TrpArgGluArgProGlnLysThrAlaSerAsnCysHisIleThrGlyTrpGlyAspThr 659

GGTCGTGCCTACTCAAGAACTCTACAACAAGCTGTGCTGCTGCTTACCCCAAGAGGTTT 2281
GlyArgAlaTyrSerArgThrLeuGlnGlnAlaAlaValProLeuLeuProLysArgPhe 679

Fig.6

TGTAAGAGAGGTACAAGGACTATTACTGGGAGAAATGCTCTGTGCTGGGAACCTCCAA	2341
CysLysGluArgTyrLysGlyLeuPheThrGlyArgMetLeuCysAlaGlyAsnLeuGln	699
GAAGACAACCGTGTGGACAGCTGCCAGGGAGACAGTGGAGGACCACATCATGTGTGAAAAG	2401
GluAspAsnArgValAspSerCysGlnGlyAspSerGlyGlyProLeuMetCysGluLys	719
CCTGATGAGTCCTGGGTTGTGTATGGGGTGACTTCCTGGGGGTATGGATGTGGAGTCAA	2461
ProAspGluSerTrpValValTyrGlyValThrSerTrpGlyTyrGlyCysGlyValLys	739
GACACTCCTGGAGTTTATACCAGAGTCCCCGCCCTTGTACCTTGGATAAAAAGTGCACC	2521
AspThrProGlyValTyrThrArgValProAlaPheValProTrpIleLysSerValThr	759
AGTCTGTAACTTATGGAAAGCTCAAGAAAATAGTAAACAGTAACCATTCAGTCTTCATA	2581
SerLeu***	761
CTTGGCACCATGCCAGAAAAA	2614

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Fig.7

CCGACGCGGTCCGCGCGCCTCTCCGCGGCTTCCGCGGCCCCCGCGGCGCTCCCT 60
 ProThrThrArgProProProProLeuProArgPheProArgProProArgAlaLeuPro 20

 GCCCAGCGCCCGCACGCCCTCCAGCGCGGCACACGCCCGCGCCGCCACCCCTGGGGCTGC 120
 AlaGlnArgProHisAlaLeuGlnAlaGlyHisThrProArgProHisProTrpGlyCys 40

 CCGCGCGCGAGCCATGGGTACGGCTACGGACTTCGGCGCCCCCGTGTCTGCGGTGGCGG 180
 ProAlaGlyGluProTrpValSerValThrAspPheGlyAlaProCysLeuArgTrpAla 60

 GAGGTGCCACCCTTCCCTGGAGCGGTCCGCCCCCAGCGAGCTGGGCTCAGCTGCCGAGGACAG 240
 GluValProProPheLeuGluArgSerProProAlaSerTrpAlaGlnLeuArgGlyGln 80

 CGCCACAACCTTTGTCCGAGCCCCCGACGGCGCGGCGAGACCCCTGGTGTCTTCTACGGAGAC 300
 ArgHisAsnPheCysArgSerProAspGlyAlaGlyArgProTrpCysPheTyrGlyAsp 100

 GCCCGTGGCAAGGTGGACTGGGGCTACTGCGACTGCAGACACGGATCAGTACGACTTCGT 360
 AlaArgGlyLysValAspTrpGlyTyrCysAspCysArgHisGlySerValArgLeuArg 120

 GGCGGCAAAATGAGTTTGAAGGCACAGTGGAAAGTATATGCAAGTGGAGTTTGGGGCACT 420
 GlyGlyLysAsnGluPheGluGlyThrValGluValTyrAlaSerGlyValTrpGlyThr 140

Fig.8

GTCTGTAGCAGCCACTGGGATGATTCTGTATGCATCAGTCATTTGTCAACAGCTGCAGCTG	480
ValCysSerSerHisTrpAspSerAspAlaSerValIleCysHisGlnLeuGlnLeu	160
GGAGGAAAAGGAATAGCAAAACACCCCGTTTCTGACTGGGCCCTTATTCCTCATTTAT	540
GlyGlyLysGlyIleAlaLysGlnThrProPheSerGlyLeuGlyLeuIleProIleTyr	180
TGGAGCAATGTCCGTTGCCGAGGAGATGAAGAAAATATACCTTTGTGAAAAAGACATC	600
TrpSerAsnValArgCysArgGlyAspGluGluAsnIleLeuLeuCysGluLysAspIle	200
TGGCAGGGTGGGGTGTCTCCTCAGAAAGATGGCAGCTGCTGTCACTGTAGCTTTTCCCAT	660
TrpGlnGlyGlyValCysProGlnLysMetAlaAlaValThrCysSerPheSerHis	220
GGCCCAACGTTCCCCCATCATTCGCCTTGCTGGAGGCAGCAGTGTGCATGAAGGCCGGTG	720
GlyProThrPheProIleArgLeuAlaGlyGlySerSerValHisGluGlyArgVal	240
GAGCTCTACCATGCTGGCCACAGTGGGGAACCGTTTGTGATGACCAATGGGATGATGCCGAT	780
GluLeuTyrHisAlaGlyGlnTrpGlyThrValCysAspAspGlnTrpAspAlaasp	260
GCAGAAAGTGATCTGCAGGCAGCTGGGCCCTCAGTGGCATTGCCAAAGCATGGCATCAGGCA	840
AlaGluValIleCysArgGlnLeuGlyLeuSerGlyIleAlaLysAlaTrpHisGlnAla	280

Fig.9

TATTTTGGGAAGGGTCTGGCCAGTTATGTTGGATGAAGTACGCTGCACCTGGGAATGAG 900
TyrPheGlyGluGlySerGlyProValMetLeuAspGluValArgCysThrGlyAsnGlu 300

CTTTCAATTGACAGTGTCCTCAAGAGCTCCTGGGAGAGCATAACTGTGGCCATAAAGAA 960
LeuSerIleGluGlnCysProLysSerSerTrpGlyGluHisAsnCysGlyHisLysGlu 320

GATGCTGGAGTGTCCTGTACCCCTCTAACAGATGGGGTCATCAGACTTGCAGGTGGGAAA 1020
AspAlaGlyValSerCysThrProLeuThrAspGlyValIleArgLeuAlaGlyGlyLys 340

GGCAGCCATGAGGGTCGCTTGGAGGTATATTACAGAGGCCAGTGGGGAACTGTCTGTGAT 1080
GlySerHisGluGlyArgLeuGluValTyrTyrArgGlyGlnTrpGlyThrValCysAsp 360

GATGGCTGGACTGAGCTGAATACATACGTGGTGTTCGACAGTTGGGATTTAAATATGTT 1140
AspGlyTrpThrGluLeuAsnThrTyrValValCysArgGlnLeuGlyPheLysTyrGly 380

AAACAAGCATCTGCCAACCAATTTTGAAGAAAGCACAGGCCCATATGTTGGATGACGTC 1200
LysGlnAlaSerAlaAsnHisPheGluGluSerThrGlyProIleTrpLeuAspVal 400

AGCTGCTCAGGAAAGGAAACCAGATTTCTTCAGTGTTCAGGCCGACAGTGGGAGGCAT 1260
SerCysSerGlyLysGluThrArgPheLeuGlnCysSerArgArgGlnTrpGlyArgHis 420

Fig.10

GACTGCAGCCACCGGAAGATGTTAGCATTCCTGCTACCTGCGGGCGGACACAGG	1320
AspCysSerHisArgGluAspValSerIleAlaCysTyrProGlyGlyGluGlyHisArg	440
CTCTCTCTGGGTTTCCTGTCAGACTGATGGATGGAGAAAATAAGAAAGGACGAGTG	1380
LeuSerLeuGlyPheProValArgLeuMetAspGlyGluAsnLysLysGluGlyArgVal	460
GAGGTTTTTATCAATGGCCAGTGGGGAACAATCTGTGATGGATGGACTGATAAGGAT	1440
GluValPheIleAsnGlyGlnTrpGlyThrIleCysAspAspGlyTrpThrAspLysAsp	480
GCAGCTGTGATCTGTCTCAGCTTGGCTACAAGGGTCCTGCCAGAGCAAGAACCATGGCT	1500
AlaAlaValIleCysArgGlnLeuGlyTyrLysGlyProAlaArgAlaArgThrMetAla	500
TACTTTGGAGAAAGGAAAGGACCCCATCCATGTGGATAATGTGAAGTGCACAGGAAATGAG	1560
TyrPheGlyGluGlyLysGlyProIleHisValAspAsnValLysCysThrGlyAsnGlu	520
AGGTCCTTGGCTGACTGTATCAAGCAAGATATTGGAAGACACAACCTGCCCCACAGTGAA	1620
ArgSerLeuAlaAspCysIleLysGlnAspIleGlyArgHisAsnCysArgHisSerGlu	540
GATGCAGGAGTTATTGTGATTTATTGGCAAGAAGCCCTCAGGTAACAGTAATAAAGAG	1680
AspAlaGlyValIleCysAspTyrPheGlyLysLysAlaSerGlyAsnSerAsnLysGlu	560

Fig.11

TCCCTCTCATCTGTTTGTGGCTTGAGATTACTGCACCGTCGGCAGAAAGCGGATCATTTGGT	1740
SerLeuSerSerValCysGlyLeuArgLeuLeuHisArgArgGlnLysArgIleIleGly	580
GGGAAAAATTCTTAAGGGTGGTTGGCCTTGGCAGGTTTCCCTCCGGCTGAAGTCATCC	1800
GlyLysAsnSerLeuArgGlyGlyTyrProTrpGlnValSerLeuArgLeuLysSerSer	600
CATGGAGATGGCAGGCTCCTCTGTCCGGGGCTACGCTCCTGAGTAGCTGCTGGGTCCTCACA	1860
HisGlyAspGlyArgLeuLeuCysGlyAlaThrLeuLeuSerSerCysTrpValLeuThr	620
GCAGCACACTGTTTCAAGAGGTATGGCAACAGCACTAGGAGCTATGCTGTAGGGTTGGA	1920
AlaAlaHisCysPheLysArgTyrGlyAsnSerThrArgSerTyrAlaValArgValGly	640
GATTATCATACTCTGGTACCAGAGGAGTTTGAGGAAGAAATTGGAGTTCAACAGATTGTG	1980
AspTyrHisThrLeuValProGluGluPheGluGluIleGlyValGlnIleVal	660
ATTTCATCGGGAGTATCGACCCGACCGCAGTGATTATGACATAGCCCTGGTTAGATTACAA	2040
IleHisArgGluTyrArgProAspArgSerAspTyrAspIleAlaLeuValArgLeuGln	680
GGACCAGAGCAATGTGCCAGATTACGAGCCATGTTTGGCAGCCCTGTTTACCACCTC	2100
GlyProGluGlnCysAlaArgPheSerSerHisValLeuProAlaCysLeuProLeu	700

Fig.12

TGGAGAGAGGCCACAGAAACAGCATCCAACCTGTTACATAACAGGATGGGGTGACACA	2160
TrpArgGluArgProGlnLysThrAlaSerAsnCysTyrIleThrGlyTrpGlyAspThr	720
GGACGAGCCTATTCAAGAACACTACAACAGCAGCCATTCCCCTTACTTCCTAAAAGGTTT	2220
GlyArgAlaTyrSerArgThrLeuGlnGlnAlaIleProLeuLeuProLysArgPhe	740
TGTGAAGAACGTTATAAGGGTCGGTTTACAGGGAGAAATGCTTGTGCTGGAAACCTCCAT	2280
CysGluGluArgTyrLysGlyArgPheThrGlyArgMetLeuCysAlaGlyAsnLeuHis	760
GAACACAAACGCGTGACAGCTGCCAGGAGACAGCGGAGGACCACTCATGTGTGAACGG	2340
GluHisLysArgValAspSerCysGlnGlyAspSerGlyGlyProLeuMetCysGluArg	780
CCCGGAGAGAGCTGGGTGGTGATGGGGTGACCTCCTGGGGGTATGGCTGTGGAGTCAAG	2400
ProGlyGluSerTrpValValTyrGlyValThrSerTrpGlyTyrGlyCysGlyValLys	800
GATTCTCCTGGTGTATTATACCACAAAGTCTCAGCCTTTGTACCTTGGATAAAAAGTGCACC	2460
AspSerProGlyValTyrThrLysValSerAlaPheValProTrpIleLysSerValThr	820
AAACTGTAATTCTTCATGGAAACTTCAAAGCAGCATTTTAAACAAATGGAAACTTTGAAC	2520
LysLeu***	822
CCCCACTATTAGCACTCAGCAGAGATGACAAACGCGCAAG	2562

Fig.13

